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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. |
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| 09/253,418 | 02/19/99 | SHERER W | 9764-82-1 |

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| NGUYEN, T | |
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DATE MAILED: 08/29/01

**Please find below and/or attached an Office communication concerning this application or proceeding.**

**Commissioner of Patents and Trademarks**

# Office Action Summary

| Application No. | Applicant(s) |
|---|---|
| 09/253,418 | Sherer et al. |
| **Examiner** | **Art Unit** |
| Toan Nguyen | 2663 |

*-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --*

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136 (a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

1) ☒ Responsive to communication(s) filed on *Jun 4, 2001*

2a) ☐ This action is **FINAL.** 2b) ☒ This action is non-final.

3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11; 453 O.G. 213.

**Disposition of Claims**

4) ☒ Claim(s) *1-3 and 6-15* is/are pending in the applica

4a) Of the above, claim(s) _____ is/are withdrawn from considera

5) ☐ Claim(s) _____ is/are allowed.

6) ☒ Claim(s) *1-3 and 6-15* is/are rejected.

7) ☐ Claim(s) _____ is/are objected to.

8) ☐ Claims _____ are subject to restriction and/or election requirem

**Application Papers**

9) ☐ The specification is objected to by the Examiner.

10) ☐ The drawing(s) filed on _____ is/are objected to by the Examiner.

11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved.

12) ☐ The oath or declaration is objected to by the Examiner.

**Priority under 35 U.S.C. § 119**

13) ☐ Acknowledgement is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d).

a) ☐ All b) ☐ Some* c) ☐ None of:

1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____ .
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

*See the attached detailed Office action for a list of the certified copies not received.

14) ☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. § 119(e).

**Attachment(s)**

15) ☒ Notice of References Cited (PTO-892)

16) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

17) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s). _____

18) ☐ Interview Summary (PTO-413) Paper No(s). _____

19) ☐ Notice of Informal Patent Application (PTO-152)

20) ☐ Other:

Application/Control Number: 09/253,418

Art Unit: 2663

## DETAILED ACTION

### *Claim Rejections - 35 USC § 112*

1. Claim 1 rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

In claim 1 line 9, "the host" has no antecedent basis.

In claim 3 in line 4, it is unclear as to what is meant by "while minimizing the time to transmission from when a packet is received from the host for a given packet". The scope of the claim is, therefore, unascertainable.

In claim 8 line 4, it is unclear as to what is meant by "while minimizing the time to transmission from when a packet is received from the host for a given packet". The scope of the claim is, therefore, unascertainable.

In claim 12 line 3, it is unclear as to what is meant by "while minimizing the time to transmission from when a packet is received from the host for a given packet". The scope of the claim is, therefore, unascertainable.

Claim 2 is rejected since it is dependent from base claim.

*Claim Rejections - 35 U.S.C. § 103*

2. The following is a quotation of 35 U.S.C. 103(a) which form the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(f) or (g) prior art under 35 U.S.C. 103(a).

3. Claims 1-3, and 12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Adelmann et al. (U.S. Patent 4,748,620) in view of Badger et al. (U.S. Patent 5,606,559).

For claim 1, Adelmann et al disclose time stamp and packet virtual sequence numbering for reconstructing information signals from packets comprising:

an interface for receiving data, said data received for a plurality of destinations, wherein data for a particular destination is received having a particular relationship among individual data units (col. 5 lines 20-22, and col. 5 lines 62-65);

an interface for transmitting packets of data over a network (col. 4 lines 11-15);

a mechanism for handling units of data received based on a destination address of said packets before transmitting on said network in order to improve overall network operation and such that when the data is received at said destination, units of data have the same relationship as when received from the host (see figure 15, col. 19 line 44 to col. 20 line 11). Adelmann et al do not disclose transmitting on said network in order to improve overall network operation. Badger et al from the same or similar field of endeavor teach improve overall network operation (col. 1 lines 12-13). Thus it would have been obvious to one of ordinary skill in the art at the time invention to use the combined system and method for an efficient ATM adapter/device driver interface as taught by Badger et al in time stamp and packet virtual sequence numbering for reconstructing information signals from packets of Adelmann et al. The motivation for using the combined system and method for an efficient ATM adapter/device driver interface as taught by Badger et al in time stamp and packet virtual sequence numbering for reconstructing information signals from packets of Adelmann et al being that it provides a system and method which simultaneously segments frames into cells and reassembles cells into frames independent of a system or a device driver across an adapter/driver interface will improve performance (col. 1 lines 54-57).

For claim 2, Adelmann et al disclose wherein said handling is determined solely by the destination address of said packets (see figure 15, col. 19 line 44 to col. 20 line 43).

For claim 3, Adelmann et al disclose wherein said handling is determined partly by the destination address of said packets and partly by when a packet is received from said host so that packets are distributed over all destinations while minimizing the time to transmission from when a packet is received from the host for a given packet (col. 19 line 51 to col. 20 line 2).

For claim 12, Adelmann et al disclose wherein said scheduling is determined partly by the destination address of said packets and partly by when a packet is received so that packets are distributed over all destinations while minimizing the time to transmission from when a packet is received from the host for a given packet (see figure 15, col. 19 line 53 to col. 20 line 2).

4. Claims 6-10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Adelmann et al (U.S. Patent 4,748,620) in view of Widjaja et al (U.S. Patent 5,406,556).

For claims 6 and 7, Adelmann et al disclose a method for maximizing network parallelism comprising:

receiving data packets in a first FIFO order (col. 21 lines 42-47);

transmitting said packets (col. 20 lines 37-41).

Adelmann et al do not disclose prior to transmitting said data packets, reordering packets of data based on a destination address of said packets, so that said packets are spread over a number of different network destination paths. Widjaja et al from the same or similar field of endeavor teach reordering packets of data based on a destination address of said packets (col. 15 lines 3-5).Thus it would have been obvious to one of ordinary skill in the art at the time invention to use the combined output buffered packet switch with a flexible buffer management scheme as taught by Widjaja et al in time stamp and packet virtual sequence numbering for reconstructing information signals from packets of Adelmann et al. The motivation for using the combined output buffered packet switch with a flexible buffer management scheme as taught by Widjaja et al in time stamp and packet virtual sequence numbering for reconstructing information signals from packets of Adelmann et al being that it provides a method of switching an input column of data packets having predetermined destination addresses and predetermined priority values

through a two-dimensional buffer array having a plurality of output queues in the form of a predetermined number of rows identified by respective corresponding ones of said destination addresses (col. 11 lines 61-67).

For claims 8-10, Adelmann et al in view of Widjaja et al disclose wherein said reordering is determined partly by the destination address of said packets and partly by when a packet is received so that packets are distributed over all destinations while minimizing the time to transmission from when a packet is received from the host for a given packet (col. 19 line 51 to col. 20 line 2), said reordering (claim 9) is determined by a preset, nonadjustable scheme (col. 8 lines 55-59), and in claim 10, said reordering is determined by a programmable scheme which takes into account differences in speed and performance paths to particular destinations to maximize network parallelism (col. 6 lines 1-10).

5. Claims 13-15 are rejected under 35 U.S.C. 103(a) as being unpatentable over McClure et al. (U.S. Patent 5,471,472) in view of Adelmann et al (U.S. Patent 4,748,620).

For claim 13, McClure et al disclose network multiplexer comprising:

a plurality of nodes, wherein at least one node in said plurality can transmit data units and a plurality of nodes can receive data units (col. 5 lines 9-14);

a transmission media for communicating data units (col. 5 lines 5-7);

McClure et al do not disclose a transmitting node network interface schedules and transmits data units on said transmission media in a destination-based order to improve network throughput. Adelmann et al from the same or similar field of endeavor teach a transmitting node network interface schedules and transmits data units on said transmission media in a destination-based order to improve network throughput (see figure 15, col. 19 line 53 to col. 20 line 2).

Thus it would have been obvious to one of ordinary skill in the art at the time invention to use the combined time stamp and packet virtual sequence numbering for reconstructing information signals from packets as taught by Adelmann et al in network multiplexer of McClure et al. The motivation for using the combined time stamp and packet virtual sequence numbering for reconstructing information signals from packets as taught by Adelmann et al in network multiplexer of McClure et al being that it controls inserting the POT value into the time stamp field and the generation of the destination code and process module address fields as well as the outputting of the packets to receive packet bus (col. 20 lines 33-37).

For claims 14-15, McClure et al in view of Adelmann et al disclose said transmitting node network interface has some knowledge about network topology and uses that knowledge to schedule packets that are transmitted on said media (col. 5 lines 9-23, and col. 7 lines 15-21), and transmitting node network interface schedules packets transparently to said transmitting node (col. 7 lines 15-25).

## Response To Arguments

6. Applicant's arguments filed on 6/ 04/2001 have been fully considered, but are moot in view of new ground(s) of rejection.

## *Conclusion*

7. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

U.S. Patent 4,748,620 to Adelmann et al, discloses Time Stamp And Packet Virtual Sequence Numbering For Reconstructing Information Signals From Packets.

U.S. Patent 5,406,556 to Widjaja et al, discloses Output Buffered Packet Switch With A Flexible Buffer Management Scheme.

U.S. Patent 5,471,472 to McClure et al, discloses Network Multiplexer.

U.S. Patent 5,606,559 to Badger et al, discloses System And Method For An Efficient ATM Adapter/Device Driver Interface.

***Contact Information***

8. Any response to this action should be mailed to:

Assistant Commissioner for Patents
Washington, D.C. 20231

9. Hand-delivered responses should be brought to Crystal Park II,
2121 Crystal Drive, Arlington, VA., Sixth Floor (Receptionist).

10. Any inquiry concerning this communication or early communications should be directed to Toan Nguyen whose telephone number is (703) 305-0140. He can be reached Monday through Friday from 7:00am to 4:30pm.

If attempts to teach the examiner by telephone are unsuccessful, the examiner's supervisor, Mr. Chau Nguyen, can be reached at (703) 308-5340. The fax phone number for this Group is (703)-872-9314.

Any inquiry of a general nature or relating to the status of this application should be direct to the Group receptionist whose telephone number is (703) 305-9600.

TN

T.N.

DANG TON
PRIMARY EXAMINER